

GETTING IN THE BIG CROPS

Modern Steam Threshers Make the Old Fashioned Machine Look Like Children's Playthings.

When the college boys and factory workers who drifted west to enter the harvest ended their active duties in the field, they found a no less interesting experience awaiting them—the threshing season. Hundreds of them were needed and they have stayed to help in the final scene of the west's great grain gathering.

Modern threshing machines are things of genius and the improvements are many every year. For instance, the old time machine, hauled by a team, was a cumbersome affair and one man stood by the spout and placed a bushel measure under the stream, leveling the top with a board when the measure was full and tallying the record on a piece of pine. It was a dreary and monotonous task and the chance for error was large. When the threshersman, who was interested in having every bushel recorded, because on the number depended his pay, had doubt of the accuracy he also had a watch and two men were needed for the comparatively simple task.

The modern machine does all this automatically. The grain comes to a spout and elevator, is weighed as it is delivered and the discharge is made directly into a waiting wagon. When the day is over an accurate record of the bushels threshed is shown on the register.

So with the feeding of the sheaves into the noisy maw of the big machine. Once a man stood with knife in hand and cut the bands as he fed the grain head foremost into the cylinder a few inches in front of and below him. Once in a while a careless slip would land the feeder in the whirling machine. It is now a piece of iron or a stone in the bundle—a crash, a piece of flying casting and perhaps death for some of the workers.

Now a self-feeder is placed on the front of the machine and the grain is pitched into it by ordinary laborers on the stacks and is broken into bits by the machinery before being fed into the cylinder that is to take out the kernels of wheat.

"There's nothing that promises such a good speculation and turns out so poor as threshing," said an old-time worker in the fields. "I've tried it three times, and every time went broke. On the face it looks like a snap. An outfit may be got for, say, \$5,000, and it is easy to figure how it can be paid for in one season; but something always happens. You lose time; a casting breaks; the engine blows out a valve and you must take it ten miles to a machine shop; a bridge gives way; rain makes the roads bad; wheat is all straw, and the yield is light compared with your work—a thousand things may happen, and some of them always do happen. The implement man takes back the machine with his pull-back note, and there you are. I could do what I always thought I could do—I would get rich threshing. No one ever does get rich at it."

Every year there is a contest between farmers and threshers regarding prices and privileges. The latter hold a convention and agree on some schedule of prices to which they say they will adhere; then they go back to the fields and cut under the order to get work, until the "union" is broken and all must be done over again. This is the list that most west threshers arranged for the present season: Wheat, with hands and teams, 10 cents a bushel, with hands only, 5 cents; without hands, 4 cents; farmers to haul the coal in all instances. The coal haul is being obviated in many instances through the use of oil burning engines. Fuel oil is so cheap that the expense is greatly lessened.

The threshers point to the extra cost of an "outfit" as warranting the high prices. For instance, the self-feeder costs \$200; the weigher, \$85; the water tank, \$100; the cook shanty, \$100. Then there is with the modern machine a "wind stacker"—a long tube through which a blast of air is forced carrying the waste straw to any part of the stack desired and doing away with two or three men on the straw stack to dispose of the waste. This costs \$250, and the thresher must pay the bill.

Then the expense of the management is not to be considered lightly by the man who has his all tied up in a machine and engine. This is his schedule of daily outgo: Interest, \$6; depreciation, \$10.50; board and cook, \$7; engine, \$3; separator man, \$2.50; water hauler and team, \$2.50; coal, \$4; six pitchers at \$1.50 each, \$9; oil, breakage and incidentals, \$1; owner, \$2—total, \$47.50.

This means that he must average 475 bushels of wheat every day before he is even with the game, and that is steadily hustling. Little wonder that the business is not such a bonanza as it looks to the outsider, who sees only the outside of the management.

Out in western Kansas last year an enterprising photographer induced a dozen young women to put on the straw hats and hats and couple themselves with forks as if they were real harvesters. Then they had their pictures taken, their faces being turned enough to avoid the camera. This picture went the rounds of the eastern press—though the young women were town girls who never worked in harvest.

The fact is that women do little in the field. Occasionally one drives the team on a harrow or self-binder, but most of their part is in helping to feed the hungry workers. When threshing time comes this is especially essential and the mistress of the cookshack is much needed. She takes pride in having her movable home in the best of order and her face is seldom other than cheerful. From the first of July to the first of October she makes the house on wheels her headquarters and every meal is served on the table that extends down its center.

The modern cook shack is a very attractive institution. It is set high on broad wheels and frame; it has screened windows, screen door, plenty of cupboards and many of the conveniences. In a smaller and cheaper arrangement, that the dining car has.

HOME COMFORTS ON THE FARM

Whenever we find ugliness and discomfort we may be sure that in nearly every case it is the result of ignorance, shiftlessness or indifference or stinginess, or all combined, and not for lack of money. We have seen a barn that cost \$3,000, with a \$20 gilded weather cock on the top of the steeple, whose owner and his family lived in a shack more comfortable and less pleasing to the eye than the stables occupied by the thoroughbred cattle of the place.

Some people live in their little, old cramped quarters, which were no doubt necessary when starting in life, until they get rich, and then in order to create envy in the hearts of their less wealthy neighbors build big, ugly houses without decoration or comfort, and then live in the kitchen. They have lived so long in the kitchen amid dowered and uncomfortable surroundings that they do not know how to live anywhere else. We should not make the mistake of waiting until we start down upon the short hill of life to enjoy the comforts and beauty along the way. The uphill may have many hard and trying places to be overcome, but there are inviting resting spots along the way, and there is beauty all around us at every step, but often we mistake the value of the goal for which we are striving, and in our eagerness to obtain wealth we pass by the beautiful things and keep our eyes too closely to the dust to see them.

President Roosevelt appointed a commission to inquire into the causes of discontent with farm life, but it is plain to every sympathetic observer that the main cause is lack of education—knowledge of how to get the most out of the soil with the greatest physical comfort; how to weave the beauty of life into the day's hard work as we go along. The cause is plain, but the remedy lies hidden in the far distant future.

A NOTED MERINO RAM

Owned by S. M. Cleaver, Delaware, Ohio.

WHY IRON IS PAINTED RED

Farming implements, bridges, skyscrapers, etc., are first painted red and then some other color, and why most people do not know.

RAISE MORE LIVE STOCK

The idea has been popular for a good many years that live stock cannot be profitably grown on small farms and that beef production naturally belongs on the ranch or the range.

This may have been true under former conditions when poor breeding and poor feeding combined to keep an animal from reaching marketable condition until it had attained three or four years, for it was only on cheap land and in large numbers that cattle could then make a profit.

A complete change is fast taking place, as the cheap lands are rising in value, and the free range is being restricted in area by the encroachments of the farmer, and more care is taken in breeding for quality than heretofore, and men everywhere are studying how best to feed to secure most profitable results.

Many of the leading experiment stations have conducted feeding tests which have conclusively proven the most profitable are at which to market cattle, and also what rations are the cheapest and best, and any one who desires can secure the bulletins which cover these points, and thus be prepared to feed and sell his stock in an intelligent manner.

With the encouragement which comes from authentic knowledge of the work in hand, the farmer even on a few acres, can be sure of success proportionate to his endeavor, for he will always be sure of a good market, as the increasing demand for beef will keep ahead of any increase in supply.

As much of the food consumed by cattle is of a bulky nature which cannot well be handled with profit, even though it were marketable, it is plain that we gain by converting such farm products into beef and milk.

With the encouragement which comes from authentic knowledge of the work in hand, the farmer even on a few acres, can be sure of success proportionate to his endeavor, for he will always be sure of a good market, as the increasing demand for beef will keep ahead of any increase in supply.

As much of the food consumed by cattle is of a bulky nature which cannot well be handled with profit, even though it were marketable, it is plain that we gain by converting such farm products into beef and milk.

WORLD'S CHAMPION JERSEY COW



Jacoba Irene, owned by A. O. Outen, Jerseyville, Ill.

DESTROYING PERNICIOUS WEEDS

SUCCESSFUL METHODS OF EXTERMINATING MILKWEED, HORSE NETTLE, QUACK GRASS, DROPSEED GRASS, COCKLEBUR, MUSTARD AND MORNING-GLORY.

BY L. H. FARMER, Agricultural Experiment College, Ames, Iowa.

Milkweed is a deep-rooted perennial and where abundant in small grain fields it is rather difficult to remove. The plants should always be shallow, as the roots are deep seated and new plants spring up from where the roots are cut off. The plowing should be followed by disking and harrowing to expose as many of the roots as possible and it should be turned into pasture as soon as possible. It is seldom that milkweed becomes injurious to pastures, as the plants lose their vitality. It is by continuous cropping of one crop that the weed becomes pernicious in its character.

Horse Nettle.

Horse nettle is one of the most troublesome weeds to deal with. Like morning glory and milkweed, it is a deep-rooted perennial. The roots are known to extend into the soil as much

as three to four feet. Cultivation should be shallow. When the weed is common, disk thoroughly and harrow, exposing the roots. When a field is covered with it it is better to summer fallow, then cultivate thoroughly and hoe during the entire season, or so with oats, which are harvested; disk and harrow for the remainder of the season. The same method used for Canada thistle may also be applied.

Wild Timothy or Drop-Seed Grass. In wild timothy or drop-seed grass the character of these "roots" is so different from that of the roots of quack grass and the other perennial weeds that we have mentioned before that it is not difficult to exterminate. The roots of this weed and the allied species are more or less clustered. By giving a shallow plowing of four or five inches and harrowing to expose the roots to the sun they will be killed.

Quack Grass. Quack grass is one of the most persistent of the perennial weeds. The roots of quack grass are shallow, the

majority occurring within less than six inches of the surface of the ground. The following methods have been suggested for its extermination:

The "Crop Method"—The land is brought into as good a state of tilth as possible and sown thickly with millet, buckwheat, sorghum or rape. This method does not destroy the roots of quack grass, but reduces their vitality to such an extent that they are not as vigorous after the removal of the millet or sorghum. Then the field should be given a shallow plowing and the roots exposed to the sun. This cannot usually be done until the middle or latter part of September. After harrowing two or three times most of the roots will be killed by drying.

Summer Fallow—The land is plowed in the spring, disked and kept clean by harrowing at least once each week during the entire season. Several fields so treated have been investigated by the writer and show no quack grass.

Mustard. Nothing has done so much to remove mustard weeds from the fields of northwestern Iowa as the pasture and meadow. If grain is sown in a cornfield there should have been no mustard the previous season. Having sown small grain on a clean field there is always a chance that some of the weeds will retain their vitality in the soil. If much of this mustard should come up it may become necessary to spray it with iron sulphate. Where the mustard is abundant this is a very effective means of destroying the weeds, using the sulphate at the rate of 100 pounds to a barrel of water.

Morning Glory. The morning glory, though a troublesome weed, does not seem to be quite as pernicious in its character as quack grass. The best treatment that can be given the morning glory is to turn it into pasture. Cattle, sheep and hogs are very effective in keeping this weed down. One writer states that by keeping it in pasture four or five years the weed is killed. Cultivation should be thorough. The plowing should be done as soon as the grain is removed in July or August. Where the weed is common the plowing should be followed by disking and harrowing and the roots should be exposed to the sun.

Quack Grass. Quack grass is one of the most persistent of the perennial weeds. The roots of quack grass are shallow, the

majority occurring within less than six inches of the surface of the ground. The following methods have been suggested for its extermination:

The "Crop Method"—The land is brought into as good a state of tilth as possible and sown thickly with millet, buckwheat, sorghum or rape. This method does not destroy the roots of quack grass, but reduces their vitality to such an extent that they are not as vigorous after the removal of the millet or sorghum. Then the field should be given a shallow plowing and the roots exposed to the sun. This cannot usually be done until the middle or latter part of September. After harrowing two or three times most of the roots will be killed by drying.

Summer Fallow—The land is plowed in the spring, disked and kept clean by harrowing at least once each week during the entire season. Several fields so treated have been investigated by the writer and show no quack grass.

Mustard. Nothing has done so much to remove mustard weeds from the fields of northwestern Iowa as the pasture and meadow. If grain is sown in a cornfield there should have been no mustard the previous season. Having sown small grain on a clean field there is always a chance that some of the weeds will retain their vitality in the soil. If much of this mustard should come up it may become necessary to spray it with iron sulphate. Where the mustard is abundant this is a very effective means of destroying the weeds, using the sulphate at the rate of 100 pounds to a barrel of water.

Morning Glory. The morning glory, though a troublesome weed, does not seem to be quite as pernicious in its character as quack grass. The best treatment that can be given the morning glory is to turn it into pasture. Cattle, sheep and hogs are very effective in keeping this weed down. One writer states that by keeping it in pasture four or five years the weed is killed. Cultivation should be thorough. The plowing should be done as soon as the grain is removed in July or August. Where the weed is common the plowing should be followed by disking and harrowing and the roots should be exposed to the sun.

Quack Grass. Quack grass is one of the most persistent of the perennial weeds. The roots of quack grass are shallow, the

majority occurring within less than six inches of the surface of the ground. The following methods have been suggested for its extermination:

The "Crop Method"—The land is brought into as good a state of tilth as possible and sown thickly with millet, buckwheat, sorghum or rape. This method does not destroy the roots of quack grass, but reduces their vitality to such an extent that they are not as vigorous after the removal of the millet or sorghum. Then the field should be given a shallow plowing and the roots exposed to the sun. This cannot usually be done until the middle or latter part of September. After harrowing two or three times most of the roots will be killed by drying.

Summer Fallow—The land is plowed in the spring, disked and kept clean by harrowing at least once each week during the entire season. Several fields so treated have been investigated by the writer and show no quack grass.

Mustard. Nothing has done so much to remove mustard weeds from the fields of northwestern Iowa as the pasture and meadow. If grain is sown in a cornfield there should have been no mustard the previous season. Having sown small grain on a clean field there is always a chance that some of the weeds will retain their vitality in the soil. If much of this mustard should come up it may become necessary to spray it with iron sulphate. Where the mustard is abundant this is a very effective means of destroying the weeds, using the sulphate at the rate of 100 pounds to a barrel of water.

Nothing has done so much to remove mustard weeds from the fields of northwestern Iowa as the pasture and meadow. If grain is sown in a cornfield there should have been no mustard the previous season. Having sown small grain on a clean field there is always a chance that some of the weeds will retain their vitality in the soil. If much of this mustard should come up it may become necessary to spray it with iron sulphate. Where the mustard is abundant this is a very effective means of destroying the weeds, using the sulphate at the rate of 100 pounds to a barrel of water.

Morning Glory. The morning glory, though a troublesome weed, does not seem to be quite as pernicious in its character as quack grass. The best treatment that can be given the morning glory is to turn it into pasture. Cattle, sheep and hogs are very effective in keeping this weed down. One writer states that by keeping it in pasture four or five years the weed is killed. Cultivation should be thorough. The plowing should be done as soon as the grain is removed in July or August. Where the weed is common the plowing should be followed by disking and harrowing and the roots should be exposed to the sun.

Quack Grass. Quack grass is one of the most persistent of the perennial weeds. The roots of quack grass are shallow, the

majority occurring within less than six inches of the surface of the ground. The following methods have been suggested for its extermination:

The "Crop Method"—The land is brought into as good a state of tilth as possible and sown thickly with millet, buckwheat, sorghum or rape. This method does not destroy the roots of quack grass, but reduces their vitality to such an extent that they are not as vigorous after the removal of the millet or sorghum. Then the field should be given a shallow plowing and the roots exposed to the sun. This cannot usually be done until the middle or latter part of September. After harrowing two or three times most of the roots will be killed by drying.

Summer Fallow—The land is plowed in the spring, disked and kept clean by harrowing at least once each week during the entire season. Several fields so treated have been investigated by the writer and show no quack grass.

Mustard. Nothing has done so much to remove mustard weeds from the fields of northwestern Iowa as the pasture and meadow. If grain is sown in a cornfield there should have been no mustard the previous season. Having sown small grain on a clean field there is always a chance that some of the weeds will retain their vitality in the soil. If much of this mustard should come up it may become necessary to spray it with iron sulphate. Where the mustard is abundant this is a very effective means of destroying the weeds, using the sulphate at the rate of 100 pounds to a barrel of water.

Morning Glory. The morning glory, though a troublesome weed, does not seem to be quite as pernicious in its character as quack grass. The best treatment that can be given the morning glory is to turn it into pasture. Cattle, sheep and hogs are very effective in keeping this weed down. One writer states that by keeping it in pasture four or five years the weed is killed. Cultivation should be thorough. The plowing should be done as soon as the grain is removed in July or August. Where the weed is common the plowing should be followed by disking and harrowing and the roots should be exposed to the sun.

Quack Grass. Quack grass is one of the most persistent of the perennial weeds. The roots of quack grass are shallow, the

majority occurring within less than six inches of the surface of the ground. The following methods have been suggested for its extermination:

The "Crop Method"—The land is brought into as good a state of tilth as possible and sown thickly with millet, buckwheat, sorghum or rape. This method does not destroy the roots of quack grass, but reduces their vitality to such an extent that they are not as vigorous after the removal of the millet or sorghum. Then the field should be given a shallow plowing and the roots exposed to the sun. This cannot usually be done until the middle or latter part of September. After harrowing two or three times most of the roots will be killed by drying.

Summer Fallow—The land is plowed in the spring, disked and kept clean by harrowing at least once each week during the entire season. Several fields so treated have been investigated by the writer and show no quack grass.

Mustard. Nothing has done so much to remove mustard weeds from the fields of northwestern Iowa as the pasture and meadow. If grain is sown in a cornfield there should have been no mustard the previous season. Having sown small grain on a clean field there is always a chance that some of the weeds will retain their vitality in the soil. If much of this mustard should come up it may become necessary to spray it with iron sulphate. Where the mustard is abundant this is a very effective means of destroying the weeds, using the sulphate at the rate of 100 pounds to a barrel of water.

Morning Glory. The morning glory, though a troublesome weed, does not seem to be quite as pernicious in its character as quack grass. The best treatment that can be given the morning glory is to turn it into pasture. Cattle, sheep and hogs are very effective in keeping this weed down. One writer states that by keeping it in pasture four or five years the weed is killed. Cultivation should be thorough. The plowing should be done as soon as the grain is removed in July or August. Where the weed is common the plowing should be followed by disking and harrowing and the roots should be exposed to the sun.

Quack Grass. Quack grass is one of the most persistent of the perennial weeds. The roots of quack grass are shallow, the

majority occurring within less than six inches of the surface of the ground. The following methods have been suggested for its extermination:

The "Crop Method"—The land is brought into as good a state of tilth as possible and sown thickly with millet, buckwheat, sorghum or rape. This method does not destroy the roots of quack grass, but reduces their vitality to such an extent that they are not as vigorous after the removal of the millet or sorghum. Then the field should be given a shallow plowing and the roots exposed to the sun. This cannot usually be done until the middle or latter part of September. After harrowing two or three times most of the roots will be killed by drying.

Summer Fallow—The land is plowed in the spring, disked and kept clean by harrowing at least once each week during the entire season. Several fields so treated have been investigated by the writer and show no quack grass.

Mustard. Nothing has done so much to remove mustard weeds from the fields of northwestern Iowa as the pasture and meadow. If grain is sown in a cornfield there should have been no mustard the previous season. Having sown small grain on a clean field there is always a chance that some of the weeds will retain their vitality in the soil. If much of this mustard should come up it may become necessary to spray it with iron sulphate. Where the mustard is abundant this is a very effective means of destroying the weeds, using the sulphate at the rate of 100 pounds to a barrel of water.

Morning Glory. The morning glory, though a troublesome weed, does not seem to be quite as pernicious in its character as quack grass. The best treatment that can be given the morning glory is to turn it into pasture. Cattle, sheep and hogs are very effective in keeping this weed down. One writer states that by keeping it in pasture four or five years the weed is killed. Cultivation should be thorough. The plowing should be done as soon as the grain is removed in July or August. Where the weed is common the plowing should be followed by disking and harrowing and the roots should be exposed to the sun.

Quack Grass. Quack grass is one of the most persistent of the perennial weeds. The roots of quack grass are shallow, the

majority occurring within less than six inches of the surface of the ground. The following methods have been suggested for its extermination:

The "Crop Method"—The land is brought into as good a state of tilth as possible and sown thickly with millet, buckwheat, sorghum or rape. This method does not destroy the roots of quack grass, but reduces their vitality to such an extent that they are not as vigorous after the removal of the millet or sorghum. Then the field should be given a shallow plowing and the roots exposed to the sun. This cannot usually be done until the middle or latter part of September. After harrowing two or three times most of the roots will be killed by drying.

MAKE EDAM CHEESE AT HOME

Our American Grass Lands Are Better Than Those of Holland for Dairying.

BY G. L. M'KAY, Professor of Dairying, Ohio College.

The Edam and Gouda are the two brands that have made Holland famous as a dairy country throughout the civilized world.

If dairying can be successfully carried on where land is worth \$400 and \$500 an acre, how much more successfully should it be carried on where land is much cheaper? The Hollander depends upon America for a large outlet for these brands of cheese.

Everything pertaining to dairying is kept scrupulously clean, even the cows in many cases being washed before they are milked. The fine flavor of the Holland cheese is no doubt largely due to their cleanliness.

Weekly markets are held in various parts of Holland for the sale of cheese, where the farmers take their cheese and dispose of them in the open market. The writer visited the market at Utrecht. It was estimated that there were 5,000 Gouda cheese on the market that day for sale. In connection with the sale of cheese, prices are offered for the best cheese and experts are present to point out defects to the dairy maids and the farmers.

The Gouda cheese as offered for sale in Holland is a soft, rich, clean-flavored cheese. This variety could be successfully made in this country, either in the home dairies or in the factories.

Among the numerous dairies visited I might mention that of H. W. Van Wandenbergh of Houten, near Utrecht. His daughter is considered one of the best makers of Gouda cheese in central Holland.

She worked entirely by rule and followed the instructions laid down by the government inspectors. The cheese were made twice each day.

The whole milk was set right after milking, or as soon as it was cooled to 55 degrees F. No coloring matter or starter was used, but enough rennet was added to coagulate the 35 pounds of milk that is stirred up in a wooden tub, fit for cutting in thirty minutes.

The method used for determining when the coagulated milk was fit to cut was to insert the forefinger into the mass at an angle of about forty-five degrees, and when the thumb was pressed against the finger the curd was ready to cut.

They use a wire breaker instead of knives which we use in this country. Great care was exercised by the young woman in breaking up the curds. It was continually stirred very slowly for about thirty-five minutes when it was all broken up as fine as kernels of corn.

It was then permitted to settle, when some of the fresh whey was removed for the factories.

They were then taken out of the hoops and the bandages removed. The cheese were then placed in a strong salt bath, where they remained three and a half days, being turned daily in the brine.

They were then taken from the brine bath and placed on the shelves, where they were turned daily for a period of three weeks.

The temperature of the curing room was from 60 to 65 degrees. At the end of these three weeks they are fit for market. This cheese sells for several cents a pound more than ordinary cheese in our market. A good cellar would make an ideal curing room for this kind of cheese.

Being a sweet curd cheese, and quickly made, it could be very desirable for home consumption or general sale to the groceryman by our local dairymen.

Little Nubbins of Farm News

A lusty old hen on the ranch of Henry Doty, in Eagle Canyon, near Naples, Cal., evidently struck a gold mine, for when killed she had two gold nuggets larger than a grain of similar thing happened, and now Mr. Doty is keeping careful watch of his flock, hoping to locate a placer gold mine.

A farmer in Ohio has started a skunk farm. The plans are to sell the fur and the oil. But the strange kind of a business is one in Mexico. The man believed he was purchasing a paradise of roses, but found when he got there that it was the reverse. All he could raise was game—if rattlesnakes, horned toads and lizards can be called game. He sells all these things to the tourists and is making good—even with such things.

An old swindle that is being tried on the farmers again is that of selling them a new and wonderful kind of wheat and binding them by contract to return to the man (who thus places himself in a way to get rich) a certain number of bushels of the grain next year. Look out for him.

A full-grown cow took the notion of visiting the parlor of Chester B. Leonard of Brockton Heights, Mass., the other day. She got caught in the furniture and caused a lot of trouble for all concerned.

Large quantities of alfalfa seed are shipped every year to Belgium and other countries of Europe to be made into dyes. There is a beautiful shade into dyes that can be obtained from no other source.

J. F. Elkins of Booneville, Ark., planted several acres of corn and cultivated the same according to the instructions of the government agricultural experts. He secured over ninety bushels per acre from land which heretofore he could not coax to yield more than twenty-five bushels per acre.

A salt manufacturer in Detroit, Mich., says that as a result of the great forest fire common table salt may become a luxury. By the present method of producing salt water is sunk into the saline deposits and later pumped off and drawn into huge pans. The water is then evaporated. Wood and sawdust are the fuel used for the process, and stock raising, fertilizers, dairying, drainage, irrigation and grazing.

Oklahoma is the only state which requires the teaching of agriculture. The courses include agriculture, horticulture, stock raising, fertilizers, dairying, drainage, irrigation and grazing.

The average mustard plant yields over 100,000 seeds; plantain, 14,000; shepherd's purse, 64,000.

STANDARD WEIGHT OF PRODUCE

Kind—	Pounds per bu.
Wheat	60
Corn on the ear	56
Corn shelled	56
Rye	56
Buckwheat	48
Barley	48
Oats	32
Peas	48
White Beans	60
White potatoes	60
Sweet potatoes	55
Onions	57
Turnips	55
Clover seed	55
Flax	55
Millet	55
Timothy seed	45
Blue grass seed	44
Hemp seed	44
Common clover	48
Brass	55

from the tub and heated to a temperature of about 140 degrees F. The entire mass was then stirred, and the hot whey added a little at a time. The temperature of the entire mass was raised from 85 to 98 degrees in about twenty minutes. After an interval of about ten minutes the curd was permitted to settle and the whey was immediately removed and placed in clean oak barrels. The curd was at once put in the hoops while still warm and pressed solid with the hands.

After standing for about five minutes without pressure the cheese was taken out of the hoops, broken up and kneaded with the hands, very much as bread is handled.

The white whey flowed freely from the broken cheese, which was still in a soft condition. At the end of the whey was enormous, but as all the whey was permitted to stand in the barrels, skimmed and the butter fat made into whey butter, the fat was largely reclaimed.

After kneading the curd was at once put back into the hoops for five minutes with no pressure applied but the weight of the flosser.

The cheese were turned three times in the hoops at intervals of five minutes. They were then put under light pressure for ten to fifteen minutes, and when this time was expired they were taken out and banded.

This was done by wrapping a piece of common cheese cotton around the cheese, leaving the ends exposed, and over the ends separate pieces of muslin were placed.

The cheese were then put back into the press, where continued pressure was applied for five hours.

The cheese that were made in the evening were pressed for two and a half hours, then the pressure was released and the cheese were re-pressed in the morning for two and a half hours more.

They were then taken out of the hoops and the bandages removed. The cheese were then placed in a strong salt bath, where they remained three and a half days, being turned daily in the brine.

They were then taken from the brine bath and placed on the shelves, where they were turned daily for a period of three weeks.

The temperature of the curing room was from 60 to 65 degrees. At the end of these three weeks they are fit for market. This cheese sells for several cents a pound more than ordinary cheese in our market. A good cellar would make an ideal curing room for this kind of cheese.

Being a sweet curd cheese, and quickly made, it could be very desirable for home consumption or general sale to the groceryman by our local dairymen.

THE MONEY-MAKING COW

Liberal feeding does not produce profitable results unless the food is of the proper kind. Successful dairymen depend on good cows and balanced rations.

If dairymen expect to compete with the makers of oleomargarine they must study how to produce butter as cheaply as possible. Until consumers are educated to eat butter at high prices they will turn to the substitute at about a certain price for real butter.

It is estimated that one pound of butter is the amount one person who is not obliged to restrict his appetite will consume in one week. It is also estimated that for the \$5,000,000 people in this country we produce only about 50,000,000 pounds of butter in a week.